

INCH-POUND

A-A-59590/14A
23 October 2005
SUPERSEDING
A-A-59590/14
10 May 2002

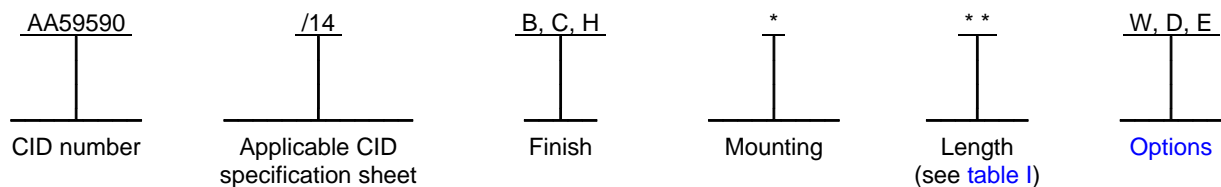
COMMERCIAL ITEM DESCRIPTION SPECIFICATION SHEET

HOLDER, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE,
SCREW ACTUATED DRIVE, .375 X .375 INCH BODY SIZE, WITH VISUAL LOCK INDICATION

The General Services Administration has authorized the use of this
commercial item description for all federal agencies.

The complete requirements for procuring electrical card holders described herein shall consist of this document and the latest issue in effect of [A-A-59590](#).

CLASSIFICATION/PART IDENTIFICATION NUMBER (PIN). This commercial item description (CID) specification sheet uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see [NOTES](#)).



Example: AA59590/14CT38E is the PIN for a chemical film finished, 3.8 inch (96.5 mm) long visual lock indicating card holder. The card holder also features two tapped mounting holes for use with 0-80 UNF fasteners and a self-locking element on the end of the actuating screw for added resistance to loosening.

SALIENT CHARACTERISTICS.

Performance. Card holders shall hold the circuit card assembly firmly in its installed position. When the card holder is installed properly, it is capable of withstanding 60g/6ms of shock, 25 G-rms of vibration, and provides from 2 to 4 degrees C/W/inch thermal resistance transfer between the circuit card assembly and the heat sink surfaces.

Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified on [figures 1, 2, 3, and 4](#), in [table I](#), and [A-A-59590](#).

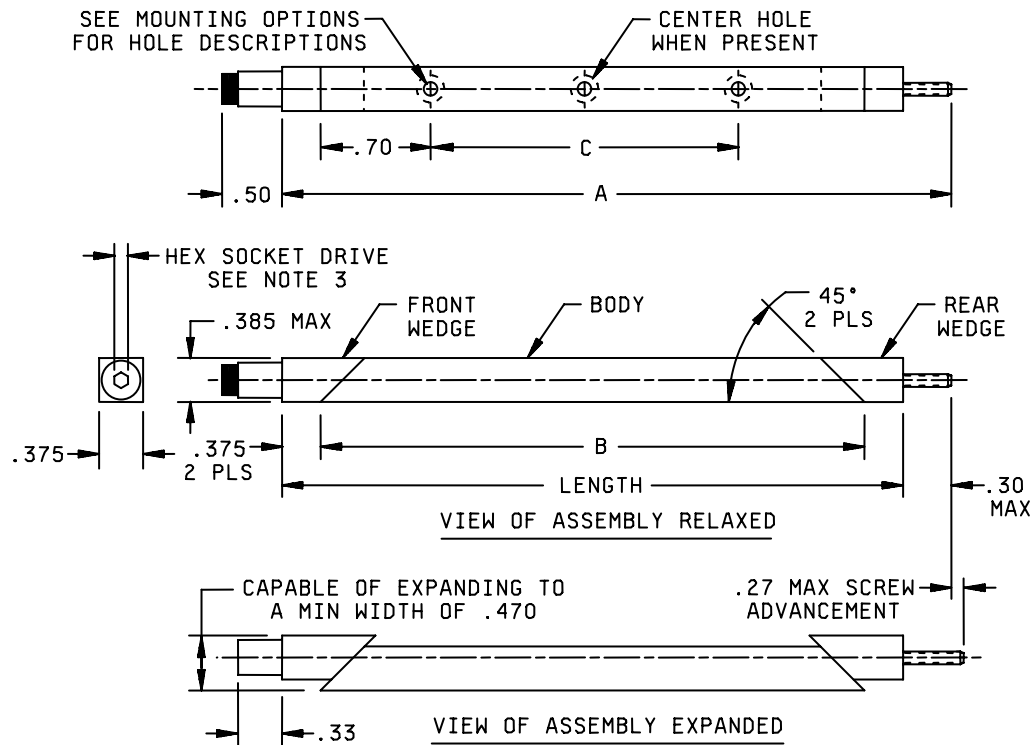
Visual lock indicator (see [figure 2](#)). Card holders shall have a visual indicator to show when the card holder is in its relaxed (unlocked) state. When the card holder is in the unlocked (relaxed) state, the actuating end of the screw shall display a red band on the side of the screw. When the actuating screw on the card holder has been tightened (assembly expanded) so that the assembly is in the locked position, this red band shall be concealed.

Nominal installation torque. When card holders are used in cold plate applications, the nominal installation torque of each card holder shall be as follows: 16 to 20 inch-pounds (1.8 to 2.3 N-m) for assemblies using no options or option "W" and 17 to 21 inch-pounds (1.9 to 2.5 N-m) for assemblies using options "E" or "D".

Cold plate dimensions. Recommend cold plate slot width to accommodate the circuit card assembly with attached card holder is .425 inch (10.80 mm) plus the thickness of the printed board of the circuit card assembly (see [A-A-59590](#)).

AMSC N/A

FSC 5998



Inches	Mm	Inches	mm	Inches	mm	Inches	mm
.20	5.1	.33	8.4	.385	9.8	.50	12.7
.27	6.9	.375	9.5	.470	11.9	.70	17.8

NOTES:

1. Dimensions are in inches. Millimeters are given for information only.
2. Unless otherwise specified, tolerances are for $\pm .02$ inch (0.51 mm) for two place decimals and $\pm .010$ (0.25 mm) for three place decimals.
3. The across flats dimension for hex drive socket shall be .140 inch (3.57 mm) for mounting options "J", "K", "N", "R", "T", "S", and "V". The across flats dimension for hex drive socket shall be a metric dimension of 3.0 mm (0.118 inch) across flats for mounting option "G" and "M".

FIGURE 1. Relaxed and expanded dimensions.

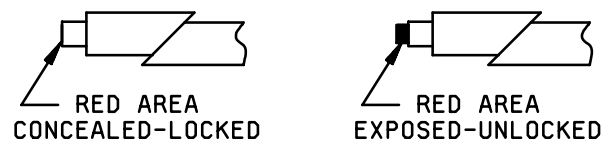


FIGURE 2. Visual lock indicator.

Finish. The finish options shall be as specified in [A-A-59590](#). The finish options available for this specification sheet are as follows: "B" (black anodize), "C" (chemical film), or "H" (hard black anodize).

Mounting. The mounting options shall be as specified in [A-A-59590](#). The mounting options available for this specification sheet are as follows: "J" or "K" (rivet mounting holes), "N" (no mounting holes), "R" or "T" (tapped 0-80 UNF 2B holes), "V" or "S" (tapped 2-56 UNC 2B holes), or "G" or "M" (tapped M2.5 x.45 metric holes). Card holders using mounting option "J" or "K" may be shipped unassembled.

Rivet mounting holes. The holes used for rivet mounting shall be .136 inch (3.45 mm) diameter through holes, countersunk 100 degrees by .190 to .200 inch (4.83 to 5.08 mm) diameter with an access/clearance counterbore hole of .190 to .200 inch (4.83 to 5.08 mm) diameter by .300 inch (7.62 mm) deep.

Mounting hole locations (when required). Two mounting holes are required on card holders less than 5.30 inches (134.6 mm) in length. Three mounting holes may be present on card holders greater than 5.30 inches (134.6 mm) in length. The third mounting hole, when present, shall be centered on the mounting body. See [figure 1](#) and [table I](#) and for mounting hole locations and spacing requirements.

Length, expanded, and relaxed dimensions. The length, expanded, and relaxed dimensions shall be as specified on [figure 1](#). The length designator shall be as specified in [A-A-59590](#) and the available lengths for this specification sheet are listed in table I.

TABLE I. Assembly dimensions (see [figure 1](#)). 1/

PIN length designator	Dimension "LENGTH" ± .02 (0.5)	Dimension "A" (maximum)	Dimension "B" ± .03 (0.8)	Dimension "C" ± .005 (0.13)
28	2.8 (71.1)	3.30 (83.8)	2.05 (52.1)	.65 (16.5)
33	3.3 (83.8)	3.80 (96.5)	2.55 (64.8)	1.15 (29.2)
38	3.8 (96.5)	4.30 (109.2)	3.05 (77.5)	1.65 (41.9)
43	4.3 (109.2)	4.80 (121.9)	3.55 (90.2)	2.15 (54.6)
48	4.8 (121.9)	5.30 (134.6)	4.05 (102.9)	2.65 (67.3)
53	5.3 (134.6)	5.80 (147.3)	4.55 (115.6)	3.15 (80.0)
58	5.8 (147.3)	6.30 (160.0)	5.05 (128.3)	3.65 (92.7)

1/ Dimensions are in inches. Millimeters, in parenthesis, are given for information only.

Options. Card holders can have the following options. Card holders not requiring the following option shall leave the options position in the PIN blank.

Lockwasher and flat washer (see [figure 3](#)). A lockwasher and flat washer located under the screw head will provide for additional resistance to loosening from shock and vibration. Card holders requiring a lockwasher and flat washer option shall include a suffix "W" in the PIN (see classification and notes).

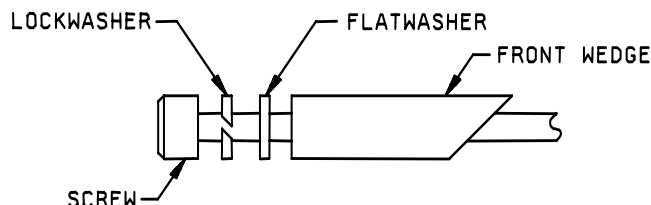


FIGURE 3. Lockwasher and flat washer details.

Screw self-locking element (see figure 4). The use of a screw self-locking element will provide prevailing torque for resistance to loosening from shock and vibration. Card holders requiring a screw self-locking element shall include a suffix "E" in the PIN (see classification and notes).

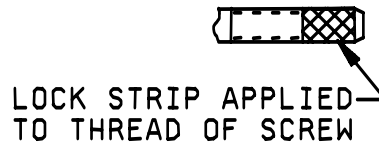


FIGURE 4. Screw self-locking element details.

Lockwasher, flat washer, and screw self-locking element. Card holders requiring a lockwasher, flat washer, and screw self-locking element option shall include a suffix "D" in the PIN (see classification and notes).

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Source of documents.

Commercial Item Description

A-A-59590 – Holder, Electrical Card, Wedge Retainers, 3 Piece, Screw Actuated Drive, General Requirements For.

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or <http://assist.daps.dla.mil/> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

Ordering data. Ordering data is as specified in A-A-59590.

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of preparation and coordination of this CID specification sheet, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

<u>Manufacturer CAGE</u>	<u>Manufacturer name and address</u>	<u>Manufacturer contact information</u>
18915	APW Electronic Solutions 14100 Danielson Street Poway, CA 92064-6898	Telephone: (858) 679-4550 Facsimile: (858) 679-4555 Electronic mail: sales.electronicsolutions@apw.com Uniform Resource Locator (URL): www.apw.com
52094	Calmark Corporation 4915 Walnut Grove Avenue San Gabriel, CA 91776-2099	Telephone: (626) 287-0451 Facsimile: (626) 287-7350 Electronic mail: sales@calmark.com URL: www.calmark.com

Part number supersession data. These CID specification sheet PINS supersedes the following manufacturer's part numbers as shown in table II. The CID PINs listed in table II are only for length designator "28". See [table III](#) for CID PIN construction using other available lengths for this specification sheet. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE II. Commercial part number supersession data.

PIN designator AA59590/14	Vendor similar designator or type part number <u>1</u> / CAGE 18915	PIN designator AA59590/14	Vendor similar designator or type part number <u>1</u> / CAGE 52094
CJ28	44VI-6	CJ28	V250-2.80H
CN28	44VI-6-A	CN28	V250-2.80
CT28	44VI-6-T	CT28	V250-2.80T0
CV28	44VI-6-S	CV28	V250-2.80T2
CG28	44VI-6-M	CG28	MV250-2.80TM2.5
CJ28E	44VI-6-L	CJ28E	V250-2.80HL
CN28E	44VI-6-A-L	CN28E	V250-2.80L
CT28E	44VI-6-T-L	CT28E	V250-2.80T0L
CV28E	44VI-6-S-L	CV28E	V250-2.80T2L
CG28E	44VI-6-M-L	CG28E	MV250-2.80TM2.5L
CJ28W	44VI-6-LF	CJ28W	WV250-2.80H
CN28W	44VI-6-LF-A	CN28W	WV250-2.80
CT28W	44VI-6-LF-T	CT28W	WV250-2.80T0
CV28W	44VI-6-LF-S	CV28W	WV250-2.80T2
CG28W	44VI-6-LF-M	CG28W	MWV250-2.80TM2.5
CJ28D	44VI-6-LF-L	CJ28D	WV250-2.80HL
CN28D	44VI-6-LF-A-L	CN28D	WV250-2.80L
CT28D	44VI-6-LF-T-L	CT28D	WV250-2.80T0L
CV28D	44VI-6-LF-S-L	CV28D	WV250-2.80T2L
CG28D	44VI-6-LF-M-L	CG28D	MWV250-2.80TM2.5L
BJ28	44VI-6-B	BJ28	VA250-2.80H
BN28	44VI-6-B-A	BN28	VA250-2.80
BT28	44VI-6-B-T	BT28	VA250-2.80T0
BV28	44VI-6-B-S	BV28	VA250-2.80T2
BG28	44VI-6-B-M	BG28	MVA250-2.80TM2.5
BJ28E	44VI-6-B-L	BJ28E	VA250-2.80HL
BN28E	44VI-6-B-A-L	BN28E	VA250-2.80L
BT28E	44VI-6-B-T-L	BT28E	VA250-2.80T0L
BV28E	44VI-6-B-S-L	BV28E	VA250-2.80T2L
BG28E	44VI-6-B-M-L	BG28E	MVA250-2.80TM2.5L

See footnote at end of table.

TABLE II. Commercial part number supersession data – Continued.

PIN designator AA59590/14	Vendor similar designator or type part number ^{1/} CAGE 18915	PIN designator AA59590/14	Vendor similar designator or type part number ^{1/} CAGE 52094
BJ28W	44VI-6-B-LF	BJ28W	WVA250-2.80H
BN28W	44VI-6-B-LF-A	BN28W	WVA250-2.80
BT28W	44VI-6-B-LF-T	BT28W	WVA250-2.80T0
BV28W	44VI-6-B-LF-S	BV28W	WVA250-2.80T2
BG28W	44VI-6-B-LF-M	BG28W	MWVA250-2.80TM2.5
BJ28D	44VI-6-B-LF-L	BJ28D	WVA250-2.80HL
BN28D	44VI-6-B-LF-A-L	BN28D	WVA250-2.80L
BT28D	44VI-6-B-LF-T-L	BT28D	WVA250-2.80T0L
BV28D	44VI-6-B-LF-S-L	BV28D	WVA250-2.80T2L
BG28D	44VI-6-B-LF-M-L	BG28D	MWVA250-2.80TM2.5L
HJ28	44VI-6-B3	HJ28	VHA250-2.80H
HN28	44VI-6-B3-A	HN28	VHA250-2.80
HT28	44VI-6-B3-T	HT28	VHA250-2.80T0
HV28	44VI-6-B3-S	HV28	VHA250-2.80T2
HG28	44VI-6-B3-M	HG28	MVHA250-2.80TM2.5
HJ28E	44VI-6-B3-L	HJ28E	VHA250-2.80HL
HN28E	44VI-6-B3-A-L	HN28E	VHA250-2.80L
HT28E	44VI-6-B3-T-L	HT28E	VHA250-2.80T0L
HV28E	44VI-6-B3-S-L	HV28E	VHA250-2.80T2L
HG28E	44VI-6-B3-M-L	HG28E	MVHA250-2.80TM2.5L
HJ28W	44VI-6-B3-LF	HJ28W	WVHA250-2.80H
HN28W	44VI-6-B3-LF-A	HN28W	WVHA250-2.80
HT28W	44VI-6-B3-LF-T	HT28W	WVHA250-2.80T0
HV28W	44VI-6-B3-LF-S	HV28W	WVHA250-2.80T2
HG28W	44VI-6-B3-LF-M	HG28W	MWVHA250-2.80TM2.5
HJ28D	44VI-6-B3-LF-L	HJ28D	WVHA250-2.80HL
HN28D	44VI-6-B3-LF-AL	HN28D	WVHA250-2.80L
HT28D	44VI-6-B3-LF-TL	HT28D	WVHA250-2.80T0L
HV28D	44VI-6-B3-LF-SL	HV28D	WVHA250-2.80T2L
HG28D	44VI-6-B3-LF-ML	HG28D	MWVHA250-2.80TM2.5L

^{1/} The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in [A-A-59590](#).

TABLE III. Example of PIN with available length designators.

PIN designator AA59590/14	Vendor similar designator or type part number <u>1/</u> CAGE 18915	PIN designator AA59590/14	Vendor similar designator or type part number <u>1/</u> <u>2/</u> CAGE 52094
CV28E	44VI-6-S-L	CV28E	V250-2.80T2L
CV33E	44VI-7-S-L	CV33E	V250-3.30T2L
CV38E	44VI-8-S-L	CV38E	V250-3.80T2L
CV43E	44VI-9-S-L	CV43E	V250-4.30T2L
CV48E	44VI-10-S-L	CV48E	V250-4.80T2L
CS53E	44VI-11-S-L	CS53E	V250-5.30ET2L
CS58E	44VI-12-S-L	CS58E	V250-5.80ET2L

1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in [A-A-59590](#).

2/ Other lengths are available on request.

MILITARY INTERESTS:

Custodians:

Army – CR
Navy – EC
Air Force – 11
DLA – CC

Review activity:

Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FSS

Preparing Activity:
DLA – CC

Project 5998-2005-002

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.daps.dla.mil>.